DOCUMENT RESUME

ED 264 251 TM 850 524

AUTHOR Danzig, Arnold B.
TITLE Student Outcomes on the Arizona Teacher Proficiency Examination.
PUB DATE 31 Mar 85
NOTE 16p.; Paper presented at the Annual Meeting of the American Educational Research Association (69th, Chicago, IL, March 31-April 4, 1985).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Basic Skills; *Competency Based Teacher Education; Educational Legislation; Higher Education; *Minimum Competency Testing; Minority Groups; Politics of Education; State Programs; State Standards; *Teacher Evaluation; *Teacher Qualifications; Test Results
IDENTIFIERS *Arizona Teacher Proficiency Examination

ABSTRACT

This paper examined some of the issues surrounding the Arizona Teacher Proficiency Examination (ATPE), including the rationale for teacher testing, the Arizona approach to testing, and selected student outcomes. Arizona moved from Legislative directive in April 1980, to the implementation of the Arizona Teacher Proficiency Examination in June 1981. The Basic Skills component of the ATPE was a four hour, 150 question test made up of three parts: reading, grammar, and mathematics. A passing grade was 80 percent on each subtest. In April 1984, legislation was signed requiring students entering teacher education programs to pass the Basic Skills exam. Failure rates were particularly high among minorities, with the overall minority failure rate averaging 69 percent. Reasons for testing at the entry level were discussed, and exam scores were compared with other measures of student ability. Alternatives were offered to basic skills testing. (LMO)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED264251

STUDENT OUTCOMES ON THE ARIZONA TEACHER PROFICIENCY EXAMINATION

BY

ARNOLD B. DANZIG
Assistant Professor
Center for Excellence in Education
Northern Arizona University

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

A. B. Danzig

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Paper presented at the Annual Meeting
of the American Educational
Research Association, Chicago
March 31, 1985

TM 850 524

"I guess--I guess it ain't never right to do bad now and figure to do good later on." Herbie Bookbinder in CITY BOY by Herman Wouk.

The Arizona Teacher Proficiency Examination (ATPE) is a simple and attractive solution to a complex problem. And, simple answers have a way of catching on and leading us astray. Unfortunately, there are no easy solutions.

This paper examines some of the issues surrounding the Arizona Teacher Proficiency Examination, including the rationale for teacher testing, the Arizona approach to testing, and selected student outcomes. It is hoped that a better understanding of some of the causes and effects of basic skills testing for prospective teachers will result.

What is the Arizona Teacher Proficiency Examination (ATPE)?

"To qualify for either a basic or standard teaching certificate, or equivalent certificate later adopted by the State Board of Education, an applicant, in addition to other requirements, shall pass a reading, grammar and mathematics proficiency examination as administered by the State Board of Education" (Arizona Revised Statutes 15-533, 1980).

Arizona moved from legislative directive in April 1980, to the implementation of the Arizona Teacher Proficiency Examination (ATPE) in June 1981. To meet the legal implementation date set by the Legislature, the Common Examination of the National Teachers Examination was used on an interim basis. A task force set up by the Arizona Department of Education then evaluated previously prepared test items in reading, grammar and mathematics from a test bank developed by the Los Angeles County Superintendent's Office and determined the content as appropriate for use as the Basic Skills component of the ATPE.

The Basic Skills component is a 4 hour, 150 question test made up of three parts: reading, grammar and mathematics. A passing grade is 80 percent on each subtest. In April 1984, legislation was signed which requires students entering teacher education programs pass the Basic Skills exam.

> To qualify for entrance into any teacher training program in the college of education of a university under the jurisdiction of the Arizona Board of Regents . . . a person, in addition to other requirements, must pass each component of the reading, grammar and mathematics proficiency examination (Senate Engrossed Copy of Arizona House Bill 2156, 1984).

As mentioned above, each section of the Exam, rather than the total score, must be passed at the 80 percent level.

Although not the focus of this paper, there is also a Professional Knowledge component of the ATPE. Questions taken from six content areas make up this component and fifty percent of questions must be answered correctly to achieve a passing score. At the present time, 89 percent of the takers of the test pass it. The Professional Knowledge component is a requirement of Arizona teacher certification and has nothing to do with college or program entry. For purposes of clarity, reference to the ATPE will refer only to the Basic Skills component of the exam.

Why Proficiency Testing for Prospective Teachers?

The question listed above is made up of three parts: (1) Why test teachers? (2) Why test basic skills proficiency? (3) Why focus on prospective teachers? Rubinstein, McDonough and Allan (1982) argue that teacher testing grew out of the general dissatisfaction with the outcomes of public education and the accompanying demands for accountability.

> The focus broadened from an examination of the curriculum and student outcomes to include an appraisal of the agents of instruction: teachers themselves (p. 11).

Weaver (1979) argues that fewer job openings in the 1970's along with growth opportunities and salaries in other fields, particularly for women, led to a deteriorated teacher applicant pool. Hathaway (1980) and Ivie (1982) show education majors scoring at or near the bottom on the Scholastic Aptitude Test and the Graduate Record Examination. The growth of teacher testing is documented by the fact that between

1977 and 1981, sixteen states enacted legislation or state board of education policy which either changed or initiated teacher testing (Rubinstein et al., 1982).

Why test for basic skills proficiency? Jaeger (1982) discusses minimal competency testing and locates such programs as political rather than educational in origin.

> Minimal competency testing programs constitute political responses to perceived public demand . . . Such programs reflect the blind faith of state legislatures and state boards of education to mandate--through law, regulation, or administrative action--some minimal level of educational success (pp. 226-227).

As states adopted minimal competency testing programs for students, it was not difficult to extend the movement to teachers. Public concern over student basic skill proficiency was also accompanied by public concern over teacher competency witness the 1980 Time Magazine cover story "Help! Teacher Can't Teach." Rubinstein et al. (1982) name ten states having basic skills tests prior to certification.

Why test prospective teachers?

Pressure to test prospective as opposed to incumbent teachers has come from teachers' organizations. Both the National Education Association (NEA) and the American Federation of Teachers (AFT) oppose the testing of employed teachers (Pearson, 1981). The other question raised is whether to test prospective teachers prior to program entry or as an exit examination. In Arizona, the Basic Skills component of the ATPE has recently been changed from an exit to an entry level exam. The pressure for this change came from the universities and colleges of education themselves. They argued that exam scores reflect basic skill attainment achieved at earlier levels of a student's education (Danzig, 1984). With an entry level exam, the locus of blame would be on the student, public schools and undergraduate studies rather than on the examination or college of education program, and embarrassment over the fact that some graduates (in some cases more than half) couldn't pass a basic skills test,

would be eliminated. Rubinstein et al. (1982) name ten states, excluding Arizona, which require an exam prior to entry into teacher education.

Effects at the State Level

Critics of minimal competency testing have pointed to high minority failure as one limitation of the approach (Jaeger, 1982; Siegel, 1983). Table I supports this view and the reader should note an overall minority failure rate of 69 percent (585/848).

(Insert Table I here)

Particularly at risk are Native Americans with a 79.9 percent failure rate (246/308). Regardless, the Exam leads to a reduced number of qualified applicants for teacher certification in Arizona.

Effects at the College Level

As mentioned earlier, pressure to use the ATPE as an entry level examination came in part, from the colleges of education. Embarrassed over the fact that their graduates could not pass a basic skills proficiency exam, they argued for early identification and possible remediation. "Why let a student attend four years of teacher education only to be unable to achieve certification?" With an entry level exam, one hundred percent of graduates would be eligible for certification.

Table II gives ATPE results during the first testing as an entry level exam. The reader should note the high percentage of failure, particularly minority failure. The reader should also note that approximately one third of students fail to take the Exam a second time and that 43 percent (35 out of 81) of retakes fail for a second time. An applicant pool of 204 is reduced to 113 eligible applicants to teacher education.

(Insert Table II here)

Table I

Results on the Basic Skills Component of the
Arizona Teacher Proficiency Exam
By Ethnic Group

Ethnic Group	Pass	Fail	Total
White	2724 (73.0%)	1006 (27.0%)	3730
Black	43 (31.2)	95 (58.8)	138
Hispanic	148 (39.5)	227 (60.5)	375
Native American	62 (20.1)	246 (79.9)	308
Asian	10 (37.0)	17 (63.0)	27
	2987 (65.2%)	1591 (34.8%)	4578 (100%)

Data is from test period July 1, 1983 - July 31, 1984.

Table II

Results on Basic Skills Component of ATPE
Used for Admissions to Teacher Education

First Time Takers (10/18/84)			
Ethnic Group	Pass	Fail	Total
White	64 (39.5%)	98 (60.5%)	162 (100%)
Black	1 (33.3)	2 (66.7)	3
Hispanic	1 (7.7)	12 (92.3)	13
Native American	1 (6.3)	15 (93.7)	16
	67 (34.5)	127 (65.5)	194

Retakes (11/15/84)			
Ethnic Group	Pass	Fail	Total
White	36 (63.2%)	21 (36.8%)	57 (100%)
Black	1 (50)	1 (50)	2
Hispanic	6 (66.7)	3 (33.3)	9
Native American	3 (23.1)	10 (76.9)	13
	46 (56.8)	35 (43.2)	81

Data taken from College of Education at Northern Arizona University.

And by program entry requirements, a student is only permitted to take the Exam three times.

> Score acceptability on a locally normal test of basic skills to include reading, mathematics, and grammar. Student will be permitted to take the examination a maximum of three times (Northern Arizona University, 1983-1985 General Catalogue, p. 192).

It is ironic that the most recent legislation not only changed the ATPE from an exit to an entry level Exam, it also raised the passing requirement for 80 percent total score to 80 percent sub-test score. Table III indicates the results.

(Insert Table III here)

Whereas 30 out of 75 students achieved passing scores (40 percent) under the old law, this will be reduced to 22 out of 75 (29.3 percent) passing scores, a reduction in the total percent of passing scores of approximately 11 percent. The result is a drastically reduced applicant pool based on results of 150 multiple choice questions.

Effects at the District Level

There is potential for bias even after the Exam has been passed. In the Fall of 1982, questionnaires were sent to school districts in Arizona asking superintendents to respond to two questions concerning the ATPE: (1) Is the Arizona Teacher Profiency Examination Basic Skills section used as a hiring tool in your district? (2) Do you request applicants to reveal their Basic Skills raw scores? Twenty-three (14 percent) districts responded affirmatively to the first question as did (six percent) to the second. While these numbers are fairly small, it is possible that the raw scores will become a way for districts to prioritize applicants, further penalizing low scoring but successful students.

Exam Scores and Other Measures of Student Ability

It was of interest to know what relationship might exist between college grade point average and basic skills proficiency. During October 1981, during the validation

Table III

CHANGES RESULTING FROM NEW LEGISLATION REQUIRING 80 PERCENT PASS FOR EACH SECTION OF THE ARIZONA TEACHER PROFICIENCY EXAMINATION*

Prior to Legislation			After New Legislation (same data)		
Pass	Fail	Total	Pass	Fail	Total
26	19	45 Whites	20	25	45 Whites
1	6	7 Hispanics	0	7	7 Hispanics
3	20	23 Native Americans	2	21	23 Native Americans

*The data reflect test scores during January - March, 1984.

period of the Exam, 141 students were tested. The mean GPA was 1.667 with a range from .545 to 4.000. Table IV shows a high positive correlation between GPA and Exam scores.

(Insert Table IV here)

During March 1982, students taking the Exam were also asked to fill out a one-page questionnaire concerning past academic performance. Students were asked to evaluate their own ability in mathematics and English on a scale of 1 to 5 (A to F). Thirty students participated and it was of interest to know whether these self-evaluations were associated with scores on the Exam. Table V indicates a high positive correlation between student self-evaluation and Exam score.

(Insert Table V here)

Students do seem to be able to evaluate their own proficiency in English and mathematics with some degree of accuracy.

One other piece of information relates to student performance on the ACT Academic Tests. Using names from the September 1981 testing, ACT scores for thirty-five students were found and correlation coefficients computed. These results are presented in Table VI.

(Insert Table VI here)

Taken together, the evidence in Tables 4-6 indicate that basic skills test scores are related to other measures of past and present academic performance. And, that the information they reveal is not something unknown to students.

Table IV

Pearson Product-Moment Correlations Between Student Grade Point Average and Admissions Exam Scores[a]

	Math	Vocabulary	Reading	Spelling	Usage
GPA	.5236	.6127	.5795	.5806	.5920
	N=141	N=140	N=141	N=141	N=141
	p <.001	p <.001	p<.001	p<.001	p<.001

[a]The first version of the Exam used for admissions was made up of five sections, 190 questions. This was later reduced to 150 questions in three sections.

Table V

Pearson Product-Moment Correlations Between Student Self-Evaluations and Exam Scores

	Math Subscore	Reading Subscore	Grammar Subscore
Math Self-Evaluation	.6617	.5687	.4620
	N=30	N=30	N=30
	p<.001	p<.002	p<.005
English Self-Evaluation	.4823	.5753	.4190
	N=30	N=30	N=30
	p<.003	p<.001	p<.02

Table VI

Pearson Product-Moment Correlations Between
ACT Scores and Admissions Exam Scores

	ACT ACADEMIC TESTS			
	English Usage	Mathematics Usage	Social Studies Reading	Natural Science Reading
Math	.4370 N=35 p<.005	.5890 N=35 p <.001	.2593 N=35 p <.05	.1550 N=35 p< .05
Vocabulary	.6580 N=34 p<.001	.6053 N=34 p< .001	.4941 N=34 p <.001	.3005 N=34 p< .05
Reading Comprehension	.6289 N=34 p<.001	.5029 N=34 p <.001	.6004 N=34 p <.001	.3533 N=34 p <.02
Spelling	.5062 N=34 p<.001	.2733 N=34 p <.05	.3000 N=34 p <.042	.2002 N=34 p< .05
Usage	.5798 N=34 p<.001	.3314 N=34 p< .003	.2915 N=34 p <.047	.1881 N=34 p< .05
Total	.7676 N=34 p<.001	.6096 N=34 p <.001	.5628 N=34 p <.001	.3537 N=34 p< .02

An Alternative to Basic SKills Testing

As mentioned earlier in the paper, minimal competency testing is a political rather than education response. The basic skills testing approach breaks down because test scores ignore the more difficult questions of motivation, desire, and suitability. Basic skills testing of prospective teachers eliminate candidates, particularly minority candidates. That is all it does.

It would be more appropriate for prospective teachers to participate in an entry level course of study in which the decision of whether to become a teacher is the focus. "Do I have the requisite skills to be a teacher?" "Does the profession offer the kinds of rewards and satisfactions that I will need?" Sixteen weeks devoted to the decision to become a teacher, the skills required of the teacher, the rewards and challenges of the profession, seems a more logical way to limit the applicant pool (if this is what is necessary) than 150 multiple choice questions in reading, grammar and mathematics.

REFERENCES

Danzig, A. B. "Testing Blitz on Minority Teachers: Intentional or Unintentional?" ARIZONA TEACHER EDUCATION JOURNAL, 1984, 1, 15-17.

Hathaway, W. E. "Testing Teachers." EDUCATIONAL LEADERSHIP, 1980, 38, 210-215.

Ivie, S. D. "Why Black Students Score Poorly on the NTE." HIGH SCHOOL JOURNAL, 1982, 65, 169-175.

Jaeger, R. M. "The Final Hurdle: Minimum Competency Achievement Testing." In G. Austin and H. Garber (eds.) THE RISE AND FALL OF TEST SCORES, 1982, 223-246.

Pearson, C. "The Teacher Competency Movement: Blessing or Sham?" In F. Shultz (ed.) ANNUAL EDITIONS 82/83, 205-207.

Rubinstein, S. A., McDonough, M. W. and Allan, R. G. "The Changing Nature of Teacher Certification Programs." Paper presented at the Annual Meeting of the National Council on Measurement in Education, NATIONAL EVALUATION SYSTEMS, Amherst, Mass., 1982.

Siegel, H. "Educational Ideals and Educational Practice: The Case of Minimum Competency Testing." ISSUES IN EDUCATION, 1983, 2 and 3, 154-170.

Time Magazine. "Help! Teacher Can't Teach." June 16, 1980.

Weaver, W. T. "In Search of Quality: The Need for Talent in Teaching." PHI DELTA KAPPAN, 1979, 61, 29-32.